

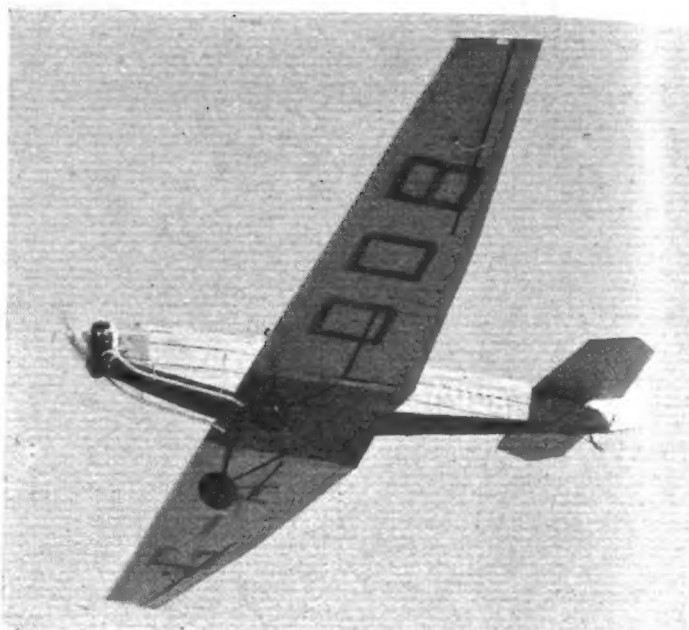
company is now in a position to quote three-weeks' delivery of this fascinating little aeroplane.

The Brawny sells for £195 and is a strut-braced parasol monoplane mounting a 30 h.p. water-cooled Carden. With a speed range of 35-68 m.p.h., and a fuel consumption of 2 gal./hr., the machine is an attractive proposition for clubs and enthusiasts.

### BRISTOL

ALTHOUGH none of the products of the Bristol Aeroplane Company, of Filton, Bristol, are in regular commercial use (Government orders having inundated their works), this company has built the fastest transport aircraft in the world.

Bearing the Bristol works number 142, and popularly known as *Britain First*, this type is powered with two Mercury VIII fully supercharged engines of 840 h.p. each. On preliminary tests the machine showed a speed of 280 m.p.h. with earlier Mercuries of only 605 h.p., and it is believed that certain improvements, the chief being the re-engining with Series VIII Mercuries, have resulted in a maximum speed in the immediate neighbourhood of 300 m.p.h. A somewhat similar machine, the type 143, has twin Bristol Aquila sleeve-valve engines of 500 h.p.



(Above)

A type combining extreme safety with lively performance: the B.A. Swallow.



(Left)

Newest of the B.A. types: the twin-Gipsy Six Double Eagle high-speed light transport.

### BRITISH AIRCRAFT

EXCEPTIONAL safety is, perhaps, the chief virtue of the little B.A. Swallow two-seater low-wing monoplane, orders for which have been keeping busy the Hanworth (Middlesex) factory of the British Aircraft Manufacturing Co., Ltd. This attractive little machine is now available with the Pobjoy Cataract III or Cirrus Minor engines, each of 90 h.p. Either unit gives a cruising speed of 92 m.p.h., but with the Pobjoy the full-load take-off run (50 yards) is 5 yards shorter and the initial rate of climb (800 ft./min.) 100 ft./min. higher. On the other hand, the Cirrus Minor permits a range of 390 miles (against the 355 miles of the radial engine version) and a payload of 212lb., or 32lb. more than with the Pobjoy. With the latter engine the price is £725.

Swallows are popular alike with clubs and private owners for training and touring.

A second type, the Eagle three-seater cabin monoplane, is normally fitted with the 130 h.p. D.H. Gipsy Major engine. The undercarriage may be arranged to retract laterally into the cantilever wing or can be fixed, in which case, of course, it is well faired. The cruising speed with undercarriage retracted is 130 m.p.h. This type sells for £1,250.

The very latest B.A. model has two engines and is characterised by the anhedral angle on the inner sections of its wings. Performance tests with this machine—a six-seater with retractable undercarriage—are not completed, but with two Series I D.H. Gipsy Sixes of 200 h.p. each it is believed that a maximum speed of at least 195 m.p.h. is obtainable.

### CIERVA

THE latest development by the Cierva Autogiro Company,

The "Autodynamic" Autogiro which is capable of direct take-off.

Ltd., of Bush House, Aldwych, London, W.C.2, is the "Autodynamic" direct take-off machine, the main fuselage structure of which is similar to that of the well known C.30 type. The new model, however, differs from its predecessors in that it is designed to take-off and land with no forward run whatsoever. Numerous advantages come readily to mind.

For direct take-off the two rotor blades move automatically to substantially zero pitch when the rotor clutch is engaged. In this position the blades are rotated to a higher speed than is required for normal flight, and when the clutch is released they automatically increase their pitch. This sudden change in pitch produces lift in excess of the weight of the machine, which, as the makers put it, "is projected into the air in a vertical direction."

In flight the rotor is driven by the relative wind, only the airscrew being driven from the Siddeley Genet Major engine. The speed of the blades remains substantially constant from top speed to vertical descent.

On touching the ground the application of a rotor brake decreases the blade pitch to zero and prevents the machine from overturning.

